IN THE CLAIMS

This listing of the claims will replace all prior versions, listings, of claims in the application:

Claim 1 (canceled)

Claim 2 (currently amended: The redundant serial bus of Claim ~~12~~ 15

wherein the input stage has means for synchronization and filtering.

Claim 3 (currently amended): The redundant serial bus of claim ~~12~~ 15 wherein the input stage has means for serial/parallel conversion.

Claim 4 (previously presented): The redundant serial bus of Claim 3,

wherein the output stage has means for parallel/serial conversion.

Claim 5 (currently amended): The redundant serial bus of Claim ~~12~~ 15

wherein the means in said evaluation stage for simultaneously evaluating ~~determining criteria of~~ the data stream also includes means for time evaluation, for assessment of the state of the receiving lines and for line selection.

Claim 6 (currently amended): The redundant serial bus of claim ~~12~~ 15 wherein the redundancy means which can be connected upstream can be permanently set to one bus line on the receiving side.

Claim 7 (currently amended): The redundant serial bus of claim ~~12~~ 15 wherein the redundancy means which can be connected upstream can be permanently set to one bus line on the transmitting side.

Claim 8 (previously presented): The redundant serial bus of Claim 7,

wherein each driver comprises a gate circuit for muting the driver output.

Claim 9 (currently amended): The redundant serial bus of

claim ~~12~~ 15 wherein at least one selected bus subscriber is equipped with a diagnosis interface for connection of control lines.

Claims 10-13 (canceled)

Claim 14 (currently amended): The method of claim ~~13~~ 16 further comprising sending and receiving said message packets on one of said bus lines in order to diagnose the redundant serial bus for a selected one of said at least one bus subscribers.

Claim 15 (new): A redundant serial bus having n>1 parallel bus lines for redundant networking of bus subscribers each having a single bus communications interface, comprising:

a redundancy means which can be connected upstream, having n interfaces for connection to all of said n parallel bus lines and one interface for connection to the single bus communications interface of at least one bus subscriber,

said redundancy means which can be connected upstream having a receiving end comprising an input stage at least for each of said bus lines, an evaluation stage and an output stage for all the bus lines,

not found in Santeler. see pg. 7 last ~~line~~ sentence

the evaluation stage has means for always simultaneously evaluating a data stream on each of said n parallel bus lines, said evaluation based on the content of said data stream other than a predefined error detection character included in said data stream and is other than the presence or absence of data for a period of time, for using said evaluation to select one of said n parallel bus lines as the receiving line for said at least one bus subscriber connected to said redundancy means, and

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said redundancy means which can be connected upstream having a transmitting end comprising a driver for each of said n parallel bus lines.

Claim 16 (new): In a redundant serial bus having n>1 parallel bus lines for redundant networking of bus subscribers each having a single bus communications interface, comprising:

a redundancy means which can be connected upstream, having n interfaces for connection to all of said n parallel bus lines

and one interface for connection to the single bus communications interface of at least one bus subscriber,

said redundancy means which can be connected upstream having a receiving end comprising an input stage at least for each of said bus lines, an evaluation stage and an output stage for all the bus lines,

a method for operating said redundant serial bus, comprising:

sending, during operation, identical message packets in parallel and at the same time to all of said bus lines,

receiving the identical message packets on all of said bus lines in parallel by said redundancy means which can be connected upstream,

not found in Juntzen

always simultaneously evaluating in said redundancy means evaluation stage the data stream message packets on each of said n parallel bus lines, said evaluation based on the content of said data stream other than a predefined error detection character included in said data stream and is other than the presence or absence of data for a period of time; and

checking the evaluation of the data streams of the received message packets; and

selecting depending on said simultaneous evaluation one of said n parallel bus lines whose data stream is passed on to the connected bus subscriber.

Claim 17 (new): The redundant serial bus of claim 15 further comprising another redundancy means which can be connected upstream, having n interfaces for connection to all of said n parallel bus lines and one interface for connection to the single bus communications interface of at least another one bus subscriber,

said another redundancy means which can be connected upstream having a receiving end comprising an input stage at least for each of said bus lines, an evaluation stage and an output stage for all the bus lines,

the evaluation stage has means for simultaneously

evaluating a data stream on each of said n parallel bus lines, said evaluation based on the content of said data stream other than a predefined error detection character included in said data stream and is other than the presence or absence of data for a period of time, for using said evaluation to select independently of any selection made by any other redundancy means connected to said n parallel bus lines one of said n parallel bus lines as the receiving line for said at least one another bus subscriber connected to said redundancy means, and

said redundancy means which can be connected upstream having a transmitting end comprising a driver for each of said n parallel bus lines.

Claim 18 (new): The method of claim 16 wherein said redundant serial bus further comprises another redundancy means which can be connected upstream and having n interfaces for connection to all of said n parallel bus lines and one interface for connection to the single bus communications interface of at least another one bus subscriber, said another redundancy means which can be connected upstream having a receiving end comprising an input stage at least for each of said bus lines, an evaluation stage and an output stage for all the bus lines,

said method further comprising

receiving the identical message packets on all of said bus lines in parallel by said another redundancy means,

simultaneously evaluating in said another redundancy means evaluation stage the data stream message packets on each of said n parallel bus lines, said evaluation based on the content of said data stream other than a predefined error detection character included in said data stream and is other than the presence or absence of data for a period of time; and

checking the evaluation of the data streams of the received message packets; and

selecting depending on said simultaneous evaluation by said another redundancy means evaluation stage and independently of any selection made by any other redundancy means connected o

said n parallel bus lines one of said n parallel bus lines whose data stream is passed on to the at least another one subscriber.